



# Opportunities in Life Sciences

Life sciences and biotech is a growing sector in Iceland. An ideal location, centralized population-based data, technical sophistication and strong governmental support create new opportunities



- Competitive government incentives, including research and development, technology development, hiring and immigration benefits for specialists
- Highly skilled and educated population with an extensive academic network and experience in life sciences and technology
- Two universities and a Science Park that focus heavily on life sciences and biotech, within a 5 km-radius
- Unmatched proximity to major markets both in Europe and North America
- Hundreds of direct flights a day and more daily direct connections to North American destinations than all the other Nordic capital airports combined
- Quick access to rich population-based data for utility in clinical trials (identification of patients), big data and machine learning, drug development and discovery, etc.



## Infrastructure for Pharmaceutical Development

Iceland is a preferred place for drug development. The patent environment in Iceland allows companies to begin the development and production of drugs before their patents expire, which helps create a competitive advantage. High level of participation makes it possible to quickly and cost-effectively conduct early stage clinical trials at a fraction of the costs of other countries.

## Rich Databases

Iceland has uniquely structured databases for medicine and genealogy. Information can be connected across databases, including health outcomes, prescription usage, genealogy, and genetics. Third parties may gain access to such non-personally identifiable data of specific metrics and patients for scientific research. Multinational conglomerates, as well as notable researchers and research groups, have leveraged this quite extensively in recent years.



# Examples of Icelandic Life Science

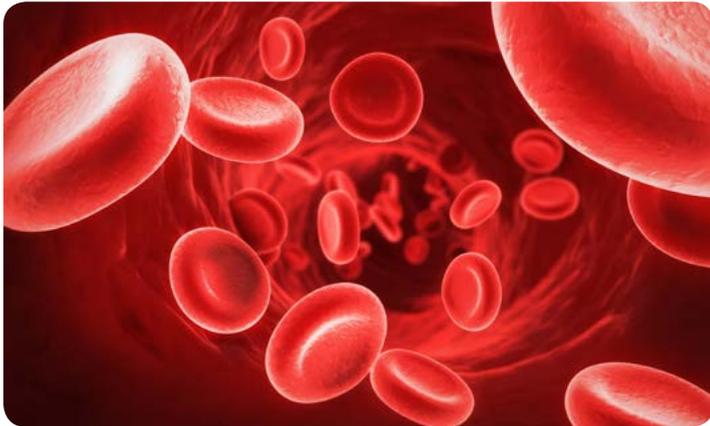
**Alvotech** is a global biopharmaceutical company dedicated to becoming one of the leaders in the biosimilar monoclonal antibody market. Alvotech is an independent sister company of the international pharmaceuticals company.

The company has six key biosimilar molecules in development and a new state-of-the-art manufacturing plant for development and commercial supply on the University of Iceland campus in the center of Reykjavik. Alvotech has established a strong academic bond with the local community and wants to strengthen it even further in the future by using the pool of world-class talent that is found within the Universities. Biosimilar medicinal products may offer a less-costly alternative to existing biological medicinal products that have lost their exclusivity rights.



**The Icelandic Heart Association** (IHA) is a nonprofit institute, founded in 1964 to battle cardiovascular illnesses. The purpose of IHA is to conduct research into the causes of heart disease, educate the public and provide individual risk evaluations.

For the last 40 years, IHA has conducted large-scale studies of over 30,000 men and women born in Iceland between 1907 and 1935. The research has focused on the multiple causes of disability in old age, including heart disease, high blood pressure, and Alzheimer's. IHA is a recognized leader in the worldwide effort to discover and integrate scientific knowledge in order to enhance the quality of life for both young and old. IHA collaborates with the National Institutes of Health, US, in the Reykjavik-AGES study (Age, Gene/Environment Susceptibility study) to examine genetic susceptibility and gene/environment interaction to create novel opportunities to prevent disease and limit disability.



**Platome** Biotechnology develops new ways to grow human cells. The company uses human blood platelets to create a range of products and biochemical solutions that are used as feedstock for cells in laboratories. Platome's products eliminate the current need for animal blood to support growing cells. By eliminating animal blood from the process, development of cellular therapies becomes much safer, faster and more reliable. Platome's products are sold in units that are shipped globally to customers, mainly research institutes, biotech and pharmaceutical companies as well as cosmetic companies. The platelet solutions are rich in human growth factors and have a great potential for various applications apart from cell culture, including wound healing and immunotherapies.



**Oculus** is a clinical stage biotechnology company focused on the development of novel and transformative topical treatments (eye drops) for ophthalmic diseases for both back and front of the eye. Oculus' novel eye-drop treatments provide an unprecedented technical advance in ocular drug delivery, particularly for the back-of-the-eye diseases that are currently managed by invasive methods only such as intraocular injections or implants. Oculus' novel eye-drop treatments are based on its proprietary solubilizing nanoparticle (SNP) technology that improves both the ability to formulate drugs as eye drops and their bio availability in the eye tissues including both the front and the back of the eye.

**ORF Genetics** is a privately owned company committed to developing innovative, economically viable and enabling solutions for the production of recombinant proteins. ORF's unique expression system Orfeus™ uses barley grain as a vehicle for recombinant protein production. Orfeus™ has been found to be particularly effective in expression of growth factors and cytokines, which enabled ORF to launch two distinctive growth factor/cytokine based products in the market. First for the stem cell research market in 2007 and then into the skin care market in 2010. ORF continues to explore the applicability of the Orfeus™ platform and the company's newest projects are taste-management proteins and a group of diverse ice-structuring proteins for the food industry.



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